What is claimed is:

1. A light guide plate for liquid crystal displays comprising a cyclic olefin copolymer material, the cyclic olefin copolymer material being represented by the formula:

$$-\left(CH_{2}-CH\right)-\left(CH_{2}-CH\right)_{m}$$

$$R_{1}$$

$$R_{2}$$

$$R_{3}$$

wherein each of R_1 , R_2 and R_3 is independently selected from the groups consisting of hydrogen and aliphatic saturated groups, and m is an integer which is equal to or greater than 1.

- 2. The light guide plate in accordance with claim 1, wherein the cyclic olefin copolymer material is a copolymer of alpha-olefin monomers and cycloolefin monomers.
- 3. The light guide plate in accordance with claim 2, wherein the cyclic olefin copolymer material is polymerized at a temperature between minus 78 to 200 degrees Centigrade and at a pressure from 0.5 to 70 Pa.
- 4. The light guide plate in accordance with claim 3, wherein the cyclic olefin copolymer material is polymerized in a catalyst of metallocene.
- 5. The light guide plate in accordance with claim 4, wherein a molar ratio of said monomers to the metallocene catalyst is in the range of 10¹ to 10¹².
- 6. The light guide plate in accordance with claim 3, wherein the temperature is preferably from minus 50 to 150 degrees Centigrade.
- 7. The light guide plate in accordance with claim 3, wherein the pressure is preferably from 1 to 50Pa.
- 8. The light guide plate in accordance with claim 3, wherein the cyclic olefin

copolymer material is polymerized in a catalyst of π complex compound catalyst.

- 9. The light guide plate in accordance with claim 8, wherein a molar ratio of said monomers to the π complex compound catalyst is in the range of 10^1 to 10^{12} .
- 10. A method of making a light guide plate for a liquid crystal display, comprising a step of providing the light guide plate which is made of a cyclic olefin copolymer material, the cyclic olefin copolymer material being represented by the formula:

$$-\left(CH_{2}-CH\right)-\left(CH_{2}-CH\right)_{m}$$

$$R_{1}$$

$$R_{2}$$

$$R_{3}$$

wherein each of R_1 , R_2 and R_3 is independently selected from the groups consisting of hydrogen and aliphatic saturated groups, and m is an integer which is equal to or greater than 1, and wherein diffusion points are formed on a surface of said light guide plate.